

WALTER A. TILLIT, JR., P.E.

PRODUCT EVALUATION REPORT

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FL P.E. License No. 44167
FL E.B. License No. 0006719

REPORT NO.: 05-0907.03
DATE: September 07, 2005
PRODUCT CATEGORY: Hurricane Shutters
PRODUCT SUB-CATEGORY: Storm Panels
PRODUCT NAME: 0.050" Bertha Aluminum Storm Panel
MANUFACTURER: Eastern Metal Supply, Inc.
4268 Westroads Drive
West Palm Beach, Florida 33407

1. PURPOSE OF EVALUATION:

This is a Product Evaluation Report issued by **Walter A. Tillit, Jr., P.E.** (System ID # 1906) to **Eastern Metal Supply, Inc.**, manufacturer, based on Rule Chapter No. 9B-72.070, Method 1d of the State of Florida Product Approval, Department of Community Affairs-Florida Building Commission.

This product is being issued an Evaluation Report as described herein, and has been verified for compliance in accordance with the 2004 edition of the Florida Building Code, and to verify that the product is for the purpose intended at least equivalent to that required by the Code.

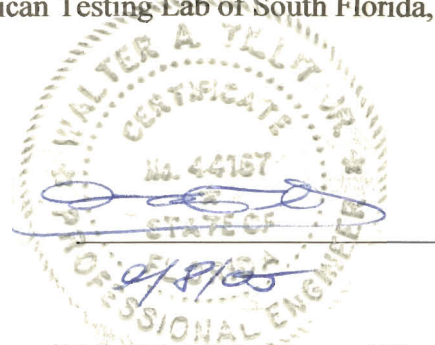
2. EVIDENCE SUBMITTED:

2.1. PRODUCT EVALUATION DOCUMENT (P.E.D.):

Drawing No. 05-270, titled "0.050" BERTHA ALUMINUM STORM PANEL", sheets 1, 1A thru 9 of 9 prepared by Tilteco, Inc.; signed and sealed by Walter A. Tillit, Jr., P.E.; dated 09/06/05. This drawing is an integral part of this Evaluation Report.

2.2. TEST REPORTS:

Large missile impact load tests were performed under SSTD 12-99 standard as per section 1609.1.4 of the Florida Building Code. Uniform static loads as per TAS 202 Protocol (ASTM E-330). Test reports prepared by American Testing Lab of South Florida,



PRODUCT EVALUATION REPORT NO. 05-0907.03

Report No. 0121.01-98R, dated April 28, 1999, signed by Tony Sivore and signed and sealed by William R. Mehner, P.E., Report No. 0329.01-00, dated May 26, 2000, signed and sealed by William R. Mehner, P.E. and Henry Hattem, P.E., Report No. 0525.01-00, dated April 26, 2000, signed and sealed by William R. Mehner, P.E., Report No. 0512.01-03, dated May 22, 2003, signed and sealed by William R. Mehner, P.E., and Report No. 0617.02-04, dated May 17, 2005, signed and sealed by Henry Hattem, P.E.

Tensile test report No. 5EM-499 by QC Metallurgical, Inc., dated June 1, 2005, signed and sealed by Frank Grate, P.E.

Mill certificates from Easco Aluminum (extruders) certify aluminum alloys and temper for components.

2.3. STRUCTURAL ENGINEERING CALCULATIONS:

On 0.050" Bertha Aluminum Storm Panel for maximum panel length vs. design wind load, as well as maximum anchor spacing vs. design wind load and panel length based on rational and comparative analysis, and in accordance with section 1612 of the Florida Building Code. Calculations prepared by Tilteco, Inc., dated 09/07/05, signed and sealed by Walter A. Tillit, Jr., P.E.

3. MISSILE IMPACT RESISTANCE:

Large missile impact under section 1609.1.4 of the Florida Building Code, as per SSTD 12-99 Standard.

4. WIND LOADS RESISTANCE:

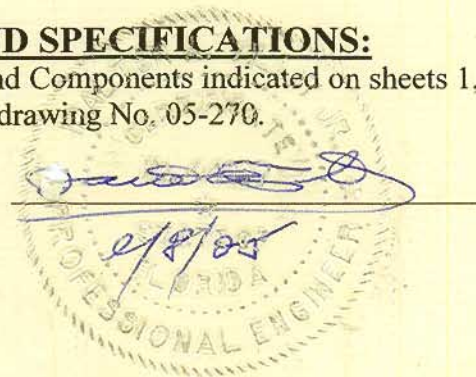
0.050" Bertha Aluminum Storm Panel has been verified to sustain wind pressures. Maximum panel length shall be as indicated on sheet 5 of 9 of Product Evaluation Document (P.E.D.), drawing No. 05-270. Maximum Anchor Spacing shall be as indicated on sheets 6, 7, 8 and 9 of 9, of Product Evaluation Document (P.E.D.), drawing No. 05-270. 0.050" Bertha Aluminum Storm Panel has been verified for code compliance to work as a non-porous storm shutter assembly, as per SSTD 12-99 Standard.

5. INSTALLATION:

Installation shall be performed strictly in accordance with the details indicated on sheets 2, 3, 4, 5, 8 and 9 of 9, of Product Evaluation Document (P.E.D.), drawing No. 05-270. Minimum separation to glass shall be as indicated on sheets 3, 4, 8 and 9 of 9, of Product Evaluation Document (P.E.D.), drawing No. 05-270.

6. MATERIAL CHARACTERISTICS AND SPECIFICATIONS:

Shall be strictly in accordance with General Notes and Components indicated on sheets 1, 1A of 9, of Product Evaluation Document (P.E.D.), drawing No. 05-270.



PRODUCT EVALUATION REPORT NO. 05-0907.03

Anchor specifications shall be as indicated on sheets 6, 7, 8 and 9 of 9, of Product Evaluation Document (P.E.D.), drawing No. 05-270.

7. LIMITATIONS AND CONDITIONS OF USE:

7.1. Shall be strictly in compliance with General Notes No. 8, 9, 10 and 11, indicated on sheet 1 of 9, of Product Evaluation Document (P.E.D.), drawing No. 05-270 prepared by Tilteco, Inc. and signed and sealed by Walter A. Tillit, Jr., P.E.

7.2. Product **shall not** be installed within HIGH VELOCITY HURRICANE ZONES as defined on section 1620.2 of the Florida Building Code.

7.3. Product shall only be installed into poured concrete, concrete block, and wood frame structures.

Product Evaluation Report prepared by Walter A. Tillit, Jr., P.E. (Florida License No. 44167), President of Tilteco, Inc. (Florida EB-0006719).

